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3 METHOD FOR TRACKING TARGETS WITH HYPER-SPECTRAL DATA

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5 ABSTRACT OF THE DISCLOSURE

6 In the present invention, the histogram model used in H-
7 PMHT is extended to treat the problem of tracking using hyper-
8 spectral data. Completely general spectral density functions
9 are handled via the use of non-parametric methods. The present
10 invention is not restricted to derivations based on knowledge of
11 the spectral character of the source being tracked. The source
12 spectrum can be estimated in a non-parametric fashion based on
13 an initial track, and this allows the invention to adapt to the
14 source spectrum in situ. The resulting method has improved
15 crossing track performance on sources that have some degree of
16 spectral distinction and will perform no worse than regular H-
17 PMHT on sources that have identical spectral densities.